

Impact-Weighted Accounts

Division of Corporation Finance
United States Securities & Exchange Commission
100 F Street, NE Washington, DC 20549
Re: Comments on Review of Climate-Related Disclosure

Impact-Weighted Accounts Initiative
Harvard Business School
Soldiers Field Boston MA, 02163

To whom it may concern:

We commend the continued efforts of the Securities and Exchange Commission to review and update the mandated climate-related disclosures to ensure that investors in companies domiciled in the United States provide the very best transparency on the increasingly material issues of climate risk and exposure. We write to you with specific reference to questions 2, 5, 11, 14, and 15. While we believe that the issues referenced in all of the questions on which you have requested comment are very important, we believe that our research and experience working with both investors and corporates provides us a unique perspective to furnish feedback on these particular questions.

The mission of the Impact-Weighted Accounts Initiative (IWAI) at Harvard Business School is to drive the creation of financial accounts that reflect a company's financial, social, and environmental performance. Our ambition is to create accounting statements that transparently capture external impacts in a way that drives investor and managerial decision-making. Recent years have offered previews of the increasing challenges resulting from humanity exceeding the planetary boundaries, with stronger and more frequent storms and wildfires, as well as the frustrations of the populace with unfair, discriminatory treatment, as well as increasing intra-economy wealth inequality. Shifts in values by investors, demonstrated by the increasing amount of assets under some form of ESG screen or considered impact investments,¹ demonstrate the importance of increasing transparency, along with reducing the costs of obtaining such information, to ensure that these investment mandates are properly applied. Additionally, even investors that still believe that the only purpose of a corporation is to maximize value to its shareholders seek greater required disclosure from corporations. The saying that one 'manages what one measures' is instructive; within the busy pace of business, measurement is not a guarantee of effective management, but issues which go entirely unmeasured will certainly not rise to the managements' agenda until it is too late. Recent years have also seen innumerable examples of 'viral' moments around corporate behavior and stakeholder treatment that have resulted in substantial shifts in management attention, business disruption, and loss of shareholder value.

Co-led by Professors George Serafeim and Ethan Rouen, experts in the fields of ESG and Impact Materiality, IWAI has published 15 papers on environmental, employment, and product impact since its inception. Our research has taken the perspective of an investor trying to use publicly available data to understand the impacts that a corporation is having on stakeholders. Critical to this committee's

¹ ESG throughout refers to environmental, social and governance factors. The Global Sustainable Investment Alliance estimated the market share of such assets to be over \$30 trillion in the 2018 Global Sustainable Investment Review, accessed May 21, 2021 at http://www.gsi-alliance.org/wp-content/uploads/2019/06/GSIR_Review2018F.pdf

consideration is our publication of monetized environmental impact for over 2,000 publicly listed companies between years 2010 and 2019. We will expand upon our relevant findings from this research in our responses to the questions below.

Question 2: What information related to climate risks can be quantified and measured? How are markets currently using quantified information? Are there specific metrics on which all registrants should report (such as, for example, scopes 1, 2, and 3 greenhouse gas emissions, and greenhouse gas reduction goals)? What quantified and measured information or metrics should be disclosed because it may be material to an investment or voting decision? Should disclosures be tiered or scaled based on the size and/or type of registrant)? If so, how? Should disclosures be phased in over time? If so, how? How are markets evaluating and pricing externalities of contributions to climate change? Do climate change related impacts affect the cost of capital, and if so, how and in what ways? How have registrants or investors analyzed risks and costs associated with climate change? What are registrants doing internally to evaluate or project climate scenarios, and what information from or about such internal evaluations should be disclosed to investors to inform investment and voting decisions? How does the absence or presence of robust carbon markets impact firms' analysis of the risks and costs associated with climate change?

Voluntary environmental disclosure does not provide sufficient data to evaluate corporate environmental impact. Specifically, we have found considerable heterogeneity among voluntary disclosures by corporations with regard to environmental information. Of the 2,585 companies we studied² fewer than 20% disclosed all of the data-points we consider necessary for environmental impact valuation, thereby requiring imputation of the absent datapoints. Indeed, over 20% of public companies that we studied provided so little information that we had to exclude them from our analyses -- even with our sophisticated imputation techniques -- as the results would have been far too unreliable for investors to use.

A current leading source of ESG information comes from ratings providers which seek to digest the complexity of translating myriad metrics, issues, and management guidance into comparable ratings in the same way that credit ratings seek to translate financial risk from a number of drivers into a risk scale for investors. However, these ratings face a few challenges including most significantly their lack of transparency and comparability.

- Transparency: Several authors have documented that transparency around the methodologies from these ratings providers are not standardized nor fully disclosed, which makes verification and replication challenging. We find this to be consistent with our research.
- Comparability: Ratings from the same provider or between providers do not provide comparable means for assessing environmental impact. Upon obtaining data from three leading ratings providers, MSCI, RobecoSAM, and Sustainalytics, we find that the relation between the natural logarithm of environmental intensity³ and the ratings is negative, consistent with the idea that firms that have greater adverse environmental intensity receive lower ratings.⁴ However, the correlations between scores and environmental intensity are low to moderate, ranging from -0.13 to -0.26, indicating that the ratings are not providing information on the magnitude of the environmental impact. Further, our within-industry analysis suggests that the ratings are not differentiating across firms within an industry on the impact dimension. This finding is

² Freiberg, David, DG Park, George Serafeim, and T. Robert Zochowski. ["Corporate Environmental Impact: Measurement, Data and Information." \(pdf\)](#) Harvard Business School Working Paper, No. 20-098, March 2020. (Revised February 2021.),

³ Environmental intensity is defined as our calculated monetary environmental impact divided by revenue.

⁴ *Ibid.*

corroborated by several recent studies that document low inter-ratings correlations in addition to numerous biases including geographic and large-cap bias⁵, thus increasing costs for investors who often need to select and aggregate across among the 100+ organizations providing ratings.⁶

As previously stated, these features of the current data landscape have implications for investors, and therefore to the SEC's mission,⁷ even if the information does not have a current material effect on a company's balance sheet. As the amount of assets under some form of ESG screen increases, as expected by numerous industry experts, the SEC has an interest in ensuring that the investment mandate that investors select is being implemented. Without accurate metrics and data upon which investment decisions are to be based, investors are not protected and markets are not efficient. Further, even investors that do not have an explicit interest in social or environmental issues have an implicit interest in these disclosures to understand potential impacts on their investment and manage risks related to catalyst events.

Another recent IWAI study⁸ documents the dynamic nature of issues considered to be financially material and hypothesizes a pathway by which issues can rise, often extremely quickly, to the level of financial materiality. Critically, the authors discuss how important proper organizational and industry response to the elevated demands of stakeholders is to preserving shareholder value. Proper risk management dictates that corporations should be anticipating and managing material issues to stakeholders; a business cannot operate at odds with stakeholders for long without these issues impacting the business itself and therefore investors.

Indeed, this is already happening. Our research shows that environmental intensity⁹ is correlated with lower equity valuations by certain measurements; specifically greater environmental intensity is negatively correlated with both Tobin's Q¹⁰ and the price to book value of equity ratios. This is after controlling for other determinants of valuation ratios, such as return on assets, leverage, firm size, capital expenditures, R&D expenditures, and dividends divided by sales. All models include industry, country, and year fixed effects. The estimates suggest that a firm with twice the environmental intensity has 2.4% lower Tobin's Q and 5.2% lower price to book value of equity.

We also find that the negative association between environmental intensity and market valuation has become more sizable in more recent years since 2010. The same conclusion holds true for environmental intensity scaled by operating income. The significance of this trifecta of research conclusions is that investors would be able to make better financially beneficial decisions if they could readily *evaluate and compare* the environmental impacts of the companies in which they invest. In short, transparency, consistency and comparability of disclosures are critical to the protection of investors.

⁵ LaBella, Michael, Lily Sullivan, Josh Russell, Dmitry Novikov. "The Devil is in the Details: The Divergence in ESG Data and Implications for Responsible Investing." QS Investors, a Legg Mason Affiliate, Whitepaper, September 2019. Accessed May 21, 2021 at <<https://www.leggmason.com/content/dam/leggmason/documents/en/insights-and-education/whitepaper/lm-qs-the-devil-is-in-the-details-0919.pdf>>

⁶ Hawley, Jim. "ESG Ratings and Rankings: All over the Map. What does it mean?" TruValue Labs, 2017. Accessed May 21, 2021 at <<https://truvaluelabs.com/wp-content/uploads/2017/12/ESG-Ratings-and-Rankings-All-Over-the-Map.pdf>>

⁷ The mission of the SEC is typically summarized as protecting investors, and maintaining fair, orderly and efficient markets and facilitating capital formation.

⁸ Freiberg, David, Jean Rogers, and George Serafeim. "How ESG Issues Become Financially Material to Corporations and Their Investors." Harvard Business School Working Paper, No. 20-056, November 2019. (Revised November 2020.)

⁹ Environmental Intensity is calculated as total environmental impact divided by revenues

¹⁰ Tobin's Q is a measure of the market value over the replacement value of assets.

Again referring to the SEC's mission statement of ensuring trust in the stability of markets to both reduce transaction costs and promote capital flows as well as protecting investors, it is advisable for the SEC to take a double-materiality approach to metrics in the longer term; that is, to include both items that are financially material to corporations now and those that are currently important to other stakeholders.¹¹ Both information sets are needed by investors. Nevertheless, we also recognize that all corporations are not scaled and resourced in the same way and thus, we believe that the SEC should start with a minimum disclosure standard along with a proportional standard to the company's size and organizational complexity for additional disclosures as the larger a corporation is, the more likely it is that one of its business areas will be at odds with a societal norm or its impact will be of a scale that a 'catalyst event' draws enough attention to make it financially material for itself and the industry and thus disruptive to investors and the market.

At a *minimum*, all corporations need to provide the following:

- Scope 1 & Scope 2 GHG emissions
- Carbon offsets and assurance of those offsets- In contrast to the CDP guidance, we believe that it is permissible to net Scope 1 & Scope 2 emissions against offsets in calculation of the corporation's overall impact; however, in advancing the goal of investor transparency, these elements should be disclosed separately. While outright reductions in emissions is preferable, sometimes businesses may find it more economically efficient for other organizations with a comparative advantage to reduce their emissions. So long as these offsets can be verified and assured, they should be rewarded.
- NOx, SOx emissions
- Water withdrawn and discharged, along with an evaluation of whether the water released is of the same quality as that withdrawn, with breakouts provided for operations in locations with high or extremely high baseline water stress as defined by the World Resources Institute's (WRI) Water Risk Atlas Tool.

A proportional rather than a universal approach may need to be taken with regard to these additional required disclosures:

- Scope 3 emissions in line with the Carbon Disclosure Project breakouts
- Reporting on how impacts on sustainability issues present both risks and opportunities to a company's business model.
- Report targets for sustainability issues and performance against these targets; provide guidance on use of suitable externally determined thresholds to help set targets.

In Appendix I, we also include a number of metrics we consider important with regard to employee and societal stakeholders, for future work.

Question 5: What are the advantages and disadvantages of rules that incorporate or draw on existing frameworks, such as, for example, those developed by the Task Force on Climate-Related Financial Disclosures (TCFD), the Sustainability Accounting Standards Board (SASB), and the Climate Disclosure Standards Board (CDSB)? [\[7\]](#) Are there any specific frameworks that the Commission should consider? If so, which frameworks and why?

We believe that there are more advantages than disadvantages to drawing on existing frameworks. Many such organizations have years of experience and recognition in the markets and have done substantial work on establishing taxonomies and definitions. Definitional alignment is helpful to investors and corporates who are already used to dealing with such organizations and eliminates

¹¹ We recognize that the SEC's mandate is not limited to requiring disclosure of financially material information.

confusion. Further, existing global standard-setters can offer valuable knowledge and expertise. We believe that building upon what already exists will help the SEC in rapid and credible development of a system of corporate disclosure standards that can be adopted globally.

Importantly, in September 2020, five leading framework and standard-setting organizations—CDP, CDSB, GRI, IIRC and SASB—announced a shared vision for a comprehensive corporate reporting system that includes both financial accounting and sustainability disclosure—and committed to harmonization and convergence over the following year. This effort has been accelerated by the moves by the IFRS Foundation to establish a sustainability standards board through an exploratory working group incorporating feedback from these five organizations in addition to the World Economic Forum. We are deeply encouraged by this effort, though at this stage the final outcome of this work is unknowable. While the SEC is not simply a follower of international standards, as it seeks what is right for the American financial context, in light of the materiality to investors referenced in our response to question 2 above – namely, that transparency, consistency and comparability are critical to the protection of investors – we do believe close attention to the developments at the IFRS Foundation is advisable.

Should the SEC rely upon an external standard setter, the standard setter must be reasonably free of external conflicts, either through lobbying or funding sources. This requires the organization be reasonably endowed with funds to ensure inter-year stability across political regimes, economic downturns, and potentially unpopular standards that are in the public interest. The organization must also have legitimacy among both governments, investors, and corporations.

Question 11: Should the Commission consider other measures to ensure the reliability of climate-related disclosures? Should the Commission, for example, consider whether management's annual report on internal control over financial reporting and related requirements should be updated to ensure sufficient analysis of controls around climate reporting? Should the Commission consider requiring a certification by the CEO, CFO, or other corporate officer relating to climate disclosures?

The Sarbanes-Oxley Act of 2002, in the wake of the WorldCom and Enron accounting scandals, recognized the importance of accountability at the most senior levels of a corporation to ensuring compliance with accurate reporting. Building on our prior comments about the current and potential materiality of disclosures of issues material to non-financial stakeholders and to providers of financial capital,¹² we believe a uniform approach should be taken to controls for such disclosures. We recommend the following:

- Require disclosure on the governance of material information. This should include a statement of management responsibility for such issues, including:
 - Who at board level is responsible for oversight;
 - Their expertise on these issues; and
 - Management performance incentives linked to non-financial issues.
- Require that material information be subject to independent assurance, including the company's materiality process. Such information is used for important decisions, so it should be reliable.
- Work toward a common global assurance standard for material information—one that includes guidance on assuring a company's materiality process. This will help ensure consistency in the application of assurance and improve the quality of such information.
- Recognize the potential to overburden smaller companies. High-quality independent assurance applied to all material information is the ideal but a phased approach may be needed for companies with lesser resources that are newly in scope of the directive.

¹² Hereafter we will refer to this set of information simply as material information.

Question 14: What climate-related information is available with respect to private companies, and how should the Commission's rules address private companies' climate disclosures, such as through exempt offerings, or its oversight of certain investment advisers and funds?

According to several studies, the number of public companies has declined substantially in recent years. The number of Wilshire 5000 stocks is down 7% in five years and a breathtaking 50% in 20 years.¹³ This suggests that an increasing number of companies are operating in the private markets where disclosure requirements are less stringent. Adding to the differences in the reporting requirements is potentially counter to the SEC's mission of ensuring capital formation. Further, requiring comparable disclosure is in line with the SEC's mission of protecting investors.

While the most vulnerable investors are generally not allowed to invest in such companies (through private equity funds), new investment products as well as new uses of old products have the potential to bring these risks into retail investors. The recent increase in Special Purpose Acquisition Companies ("SPACs") is a recent example of this potential. Furthermore, investors in private equity funds or high net worth investors, while they meet the standards of accredited and/or qualified purchasers depending on the offering type, have an interest in receiving information to manage their exposure to material risks related to climate. While many private equity managers may have the leverage to require private companies to disclose this not all will. Further, managers that require such information may acquire a reputation as challenging investors, thus disadvantaging their ability to find suitable investments and deploy capital efficiently.

Again, we believe that a tiered approach should be applied to SME's.¹⁴ Startups receiving funds from friends and family as well as those receiving venture capital investments are not the same as the so called "private unicorns;" the latter should not escape comparable disclosure requirements merely because they have not yet gone public. Overly burdensome regulations relative to the size of small businesses could hamper capital formation without achieving the otherwise laudatory benefits of disclosure. However, this must be balanced against the potential risks of lack of disclosure to investors.

Question 15: In addition to climate-related disclosure, the staff is evaluating a range of disclosure issues under the heading of environmental, social, and governance, or ESG, matters. Should climate-related requirements be one component of a broader ESG disclosure framework? How should the Commission craft climate-related disclosure requirements that would complement a broader ESG disclosure standard? How do climate-related disclosure issues relate to the broader spectrum of ESG disclosure issues?

Monetization

We strongly believe in the potential of impact monetization and its alignment with the SEC's mission; in our experience investors want to measure positive and negative impacts on the environment and society arising from companies' operations, employment and products, and to do so in a user-

¹³ Krantz, Matt. "Chasing Right Stocks to Buy is Critical with Fewer Choices but Big Winners" Investor's Business Daily, November 2020. Accessed on May 26, 2021 at <<https://www.investors.com/news/publicly-traded-companies-fewer-winners-huge-despite-stock-market-trend/>>

¹⁴ SMEs are small and medium-sized enterprises. The Small Business Administration provides specific guidelines by industry based on revenue and/or employees for businesses that qualify as a small business. The definition of a medium-sized enterprise in the United States is less well defined.

friendly way. Our research shows that it is possible to monetize these different impacts and reflect them in financial accounts. This is investor-friendly as it allows for the use of established tools of financial analysis and the development of investment strategies and products that integrate the impacts of companies with financial and other relevant performance information. A recent European Commission Proposal acknowledged the potential benefits of this approach: “some natural capital counting methodologies seek to assign a monetary value to the environmental impacts of companies’ activities, which may help users to better understand those impacts. It is therefore appropriate that sustainability reporting standards should be able to include monetized indicators of sustainability impacts.”¹⁵

Employment Impact

Globally, increasing amounts of corporate value are derived from human capital, especially in developed economies like the United States, where the number of knowledge workers has doubled since the 1980s and is likely to continue increasing. An indication of the rising importance of human capital to businesses comes from required IFRS disclosures on personnel expenditures in publicly traded European firms:

[From] 1991 to 2018, capital expenditures as a percentage of total sales remained relatively flat at about 10%. On the other hand, personnel expenditures almost doubled during that time. By 2018, personnel expenditures consumed approximately half of all of the average firm’s revenues in our large sample of publicly traded European firms reporting under IFRS.¹⁶

The above paper, “The Stock Market Value of Human Capital Creation” by Rouen and Regier (October 2020) develops a proxy for firm-level human capital investment from publicly disclosed personnel expenses and examines the stock market valuation of impacts. They find that human capital creation efficacy is value relevant; sample long-short portfolios based on measure of human capital creation produced annualized abnormal returns of 4.0 to 9.3%. The paper’s findings imply that market participants (analysts and investors) fail to completely understand the investment component of the expenditure.

However, disclosures which provide a proxy for firm culture are also decision relevant to investors. Employees are critical to the maintenance of corporate intangible assets, which Morgan Stanley estimates are now approximately one and a half times the amount of tangible assets.¹⁷ In an analysis of nearly 2,000 publicly traded companies ranked by employee retention rates, they find that a portfolio comprised of top quintile employee retention companies had 25% higher cumulative gains than those of the bottom quartile. Further, they find evidence of causality for this positive (negative) alpha for companies with improvement (deterioration) in employee turnover.

While data on firms’ human capital is growing increasingly available to those with the money and technical sophistication to scrape data from the web, this creates information asymmetries and leads to inefficient markets by distorting the value of the firm. We believe that investors require adequate disclosure not only to understand how corporations are investing in human-capital creation, but also to identify key risks and opportunities related to the maintenance and care of that capital from which an increasingly large share of value is derived for the firm. We, therefore, endorse mandating human capital disclosure so that investors can efficiently utilize these insights.

¹⁵ European Commission, *Proposal for a Directive of the European Parliament and of the Council amending Directive 2012/34/EU, Directive 2004/109/EC, Directive 2006/43/EC and Regulation (EU) No 537/2014, as regards corporate sustainability reporting*. Brussels 21.4.2021, accessed May 21, 2021 at < <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52021PC0189&from=EN> >

¹⁶ Regier, Matthias, and Ethan Rouen, in “The Stock Market Value of Human Capital Creation.” Harvard Business School Working Paper, No. 21-047, October 2020.

¹⁷ Rouen, Ethan and Morgan Stanley Investment Management Counterpoint Global Insights. “Culture Quant Framework” January 2021.

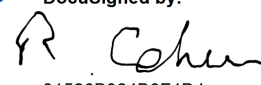
We provide detail for the suggested employment metrics that would satisfy this need in the appendix below.

Summary

The team at Impact-Weighted Weighted Accounts reaffirms the importance of the SEC's examination of its current disclosure requirements as critical to the organization's mission. Such disclosures within both the context of environmental and employment impacts are critical to enabling investors to properly assess risk and opportunities within markets as well as to maintaining fair, orderly and efficient markets and facilitating capital flows to companies best positioned to manage the dynamics of material impacts in the markets of the coming decades.

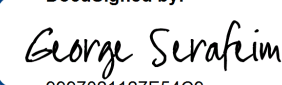
We are open to dialogue with the SEC Commissioners and staff should any of our comments be unclear.

Signed,

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Sir Ronald Cohen

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Appendix I: Recommended Metrics Related to Social and Employment Impact

Indicator Used in IWAI Employment Framework	How can the indicator be used?
Number of employees disaggregated by:	
Full-time, part-time employees, and contingent workers (independent contractors, temporary employees, among other sub-categories)	Measure wage quality, including access to living wage and wage equity
Gender, Race, Ethnicity ¹⁸ across different employment bands and levels	Investor relevant to the extent that companies are putting more and more resources into improving their DEI and/or struggling to attract/retain talent because of poor DEI.
Total cost of the issuer's workforce, including wages, benefits and other transfer payments, and other employee expenses	
Turnover (or comparable workforce stability metric)	

¹⁸ All disclosures and requests for disclosure should be made in accordance with appropriate jurisdictional laws and regulations regarding data privacy and identification of race and gender.